METHOD AND SYSTEM FOR DETERMINING THE ACCEPTABILITY OF SIGNAL DATA COLLECTED FROM A PROTHROMBIN TIME TEST STRIP

ABSTRACT OF THE DISCLOSURE

[0059] A method for determining the acceptability of signal data collected from a prothrombin time (PT) test strip includes collecting PT signal data from an assay area and control areas of the PT test strip. Relationships between PT signal data collected from the assay area and PT signal data collected from each of the control areas (e.g., a ratio of post-peak pseudo-slopes) are then ascertained. A determination is subsequently made, based on the relationships, as to whether the PT signal data collected from the assay area is acceptable or not for use in calculating a PT and/or an International Normalization Ratio (INR). This determination can include, for example, comparing the relationships to at least one predetermined threshold limit. A prothrombin time (PT) monitoring system includes a PT test strip and a device. The PT test strip includes an assay area and a control area. The device (e.g., a portable hand-held meter) includes an optical measurement means (e.g., an LED/photo-detector pair) for measuring an optical property (e.g., absorption) of the assay area and control areas, an analog-to-digital converter module, a microprocessor module and a memory module. The optical measurement means, analog-to-digital converter module, microprocessor module and memory module are adapted to (i) collect PT signal data from the assay area and control areas; (ii) ascertain at least one relationship between PT signal data collected from the assay and control areas and (iii) determine, based on the at least one relationship, whether the PT signal data collected from the assay area is acceptable.

Figure 1